

PATENT COOPERATION TREATY

PCT

REC'D 08 DEC 2000

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference JHT0002	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US00/01008	International filing date (day/month/year) 14 JANUARY 2000	Priority date (day/month/year) 15 JANUARY 1999
International Patent Classification (IPC) or national classification and IPC Please See Supplemental Sheet.		
Applicant EXXONMOBIL RESEARCH AND ENGINEERING COMPANY		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets.
- ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
- These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 14 AUGUST 2000	Date of completion of this report 29 SEPTEMBER 2000
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer MARK BELL DEBORAH THOMAS PARALEGAL SPECIALIST
Facsimile No. (703) 305-3230	Telephone No. (703) 308-0661

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/01008

I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☒ the description:
 pages 1-56 , as originally filed
 pages NONE , filed with the demand
 pages NONE , filed with the letter of _____
- ☒ the claims:
 pages 57-59 , as originally filed
 pages NONE , as amended (together with any statement) under Article 19
 pages NONE , filed with the demand
 pages NONE , filed with the letter of _____
- ☒ the drawings:
 pages 1-2 , as originally filed
 pages NONE , filed with the demand
 pages NONE , filed with the letter of _____
- ☒ the sequence listing part of the description:
 pages NONE , as originally filed
 pages NONE , filed with the demand
 pages NONE , filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages NONE
- ☒ the claims, Nos. NONE
- ☒ the drawings, sheets/figs NONE

5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

*** Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).*

*** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.*

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/01008

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. statement**

Novelty (N)

Claims	<u>1-16</u>	YES
Claims	<u>NONE</u>	NO

Inventive Step (IS)

Claims	<u>1-16</u>	YES
Claims	<u>NONE</u>	NO

Industrial Applicability (IA)

Claims	<u>1-16</u>	YES
Claims	<u>NONE</u>	NO

2. citations and explanations (Rule 70.7)

Claims 1-16 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest the claimed process for hydrofining a lubricating oil feedstock comprising contacting the feedstock with a hydrofining catalyst under hydrofining conditions, wherein the hydrofining catalyst comprises a bulk metal catalyst containing non-noble Group VIII metal molybdate in which at least a portion but less than all of the molybdenum is replaced with tungsten.

Ferlazzo et al. and Velenyi teach catalysts containing the same components (Ni, Mo, W, etc.). However, these references teach ranges of these components that are not commensurate with the above bulk metal catalyst. Also, the catalysts of Ferlazzo et al. and of Velenyi are useful in the production of methyl acrylate or a mixture of methyl acrylate with acrylic acid (Ferlazzo et al) and for the conversion of methane to higher order hydrocarbons (Velenyi).

Van Klinken et al. teach a hydrosulfurization process employing a catalyst comprising nickel and/or cobalt and molybdenum and/or tungsten. However, these metals are present in amounts not commensurate with the above bulk metal catalyst.

----- NEW CITATIONS -----
NONE

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/01008

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

CLASSIFICATION:

The International Patent Classification (IPC) and/or the National classification are as listed below:
IPC(7): C10G 17/00, 71/00, 47/02, 47/24, 47/04, 45/00, 45/04, 45/60, 29/00, and US Cl.: 208/177, 18, 108, 112, 143, 216R, 217, 243, 244, 254R, 251R

TENT COOPERATION TREATY

PCT

From the INTERNATIONAL BUREAU

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

To:

OTT, Roy, J.
ExxonMobil Research and
Engineering Company
P.O. Box 900
1545 Route 22 East
Annandale, NJ 08801-0900
ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year)

15 September 2000 (15.09.00)

Applicant's or agent's file reference

JHT0002

IMPORTANT NOTIFICATION

International application No.

PCT/US00/01008

International filing date (day/month/year)

14 January 2000 (14.01.00)

1. The following indications appeared on record concerning:

☐

the applicant

☐

the inventor

☒

the agent

☐

the common representative

Name and Address

OTT, Roy, J.
ExxonMobil Research and
Engineering Company
P.O. Box 390
Florham Park, NJ 07932-0390
United States of America

State of Nationality

State of Residence

Telephone No.

973 765 1549

Facsimile No.

973 765 2529

Teleprinter No.

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐

the person

☐

the name

☒

the address

☐

the nationality

☐

the residence

Name and Address

OTT, Roy, J.
ExxonMobil Research and
Engineering Company
P.O. Box 900
1545 Route 22 East
Annandale, NJ 08801-0900
United States of America

State of Nationality

State of Residence

Telephone No.

225 977 4584

Facsimile No.

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Teleprinter No.

3. Further observations, if necessary:

The new address of the agent on the demand has been considered as a request for recording a change under Rule 92bis. In case of disagreement, the applicant should immediately notify the International Bureau accordingly.

4. A copy of this notification has been sent to:

☒

the receiving Office

☐

the designated Offices concerned

☐

the International Searching Authority

☒

the elected Offices concerned

☒

the International Preliminary Examining Authority

☐

other:

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

Beate Giffo-Schmitt

Telephone No.: (41-22) 338.83.38